Remarks

Claims 1-70 were originally filed in this application.

Without prejudice or disclaimer, claims 1-20, 30-39, 46-50, 52, 55-61, and 70 were previously canceled.

Without prejudice or disclaimer, claims 51, 53-54, and 62-69 have been withdrawn from consideration as being directed to a non-elected invention.

Claim 21 is currently amended without introducing new matter. Support for the amendments can be found throughout the specification, claims, and drawings as originally filed. Withdrawn independent claims 51 and 62 are currently amended without introducing new subject matter. Support for the amendments to these claims can also be found throughout the specification, claims, and drawings as originally filed.

New dependent claims 71 and 72 are presented without introducing new matter. Support for the subject matter of claims 71 and 72 can be found throughout the specification, claims, and drawings as originally filed.

Claims 21-29, 40-45, and 71-72 remain pending, with claims 21 and 40 being independent claims.

Objection to the Specification

The Specification was objected to and amendment to clarify that U.S. Patent Application No. Application No. 10/712,248 has been granted as U.S. Patent No. 7,083,733 B2 has been required.

The Specification has been amended accordingly.

The Specification has been further amended to indicate that U.S. Patent Application No. 10/712,674 has been granted as U.S. Patent No. 7,582,198 B2 on September 1, 2009; U.S. Patent Application No. 10/712,250 has been granted as U.S. Patent No. 7,604,725 B2 on October 29, 2009; and U.S. Patent Application No. 10/712,163 has been granted as U.S. Patent No. 7,563,351 B2 on July 21, 2009. No new matter has been introduced with the amendments.

Accordingly, reconsideration and withdrawal of the objection to the Specification is respectfully requested.

Restriction under 35 U.S.C. § 121

Restriction under 35 U.S.C. § 121 to one of the following inventions has been required:

I claims 21-29 and 40-45, drawn to a system for treating water and distributing it to both a point of use and an auxiliary use, classified in class 210, subclass 243; and

II claims 51, 53-54, and 62-69, drawn to a system for accumulating water at a pressure above atmospheric pressure, classified in class 204, subclass 524.

Applicants confirm selection of the invention of group I, including claims 21-29 and 40-45 for examination in this application. Claims 51, 53-54, and 62-69 have been withdrawn from consideration without prejudice or disclaimer as being directed to a non-elected invention.

Applicants respectfully traverse the requirement because search and examination of all the pending claims has already been performed without a showing of any undue burden. Applicants also note that because the subject matter of pending elected dependent claim 22 implicates accumulating water at a pressure above atmospheric pressure, the alleged distinction between the inventions is de minimis.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the restriction and examination of claims 21-29, 40-45, 51, 53-54, and 62-69 collectively. In the alternative, Applicants respectfully request rejoinder and examination of at least claims 51, 53, 54, and 62-67 with pending claims 21-29 and 40-45.

Rejection under 35 U.S.C. § 102

Claims 21, 22, and 40-42 were rejected as anticipated under 35 U.S.C. § 102(b) as anticipated by the disclosure of Bauman in U.S. Patent No. 3,630,378 (hereinafter "Bauman").

Applicants respectfully disagree that Bauman anticipates the respective subject matter of each of claims 21, 22, and 40-42 because Bauman fails to disclose each of the respective limitations recited in the particular manner in these claims.

Bauman discloses a water treating and storage system with a first storage vessel for treated water connected that the bottom to a raw water supply, a second storage vessel for service water, a water treating unit such as a reverse osmosis or an electrodialysis unit. (Bauman at Abstract and column 1, lines 49-71.)

Bauman allegedly at column 1, lines 25-29, discloses an auxiliary use 16 as service water "to use for flushing toilets etc." The cited passage of Bauman, however, states:

> Many industrial and household needs do not need treated water and only a portion of the water needs are for treated water. For example, in the home it is desirable to have softened water for washing, cooking, etc., but it would be wasteful to soften the water used to flush toilets, etc.

The reliance on this cited passage of Bauman is misplaced because there is no teaching of an auxiliary use that is fluidly connected to a waste stream or discharge water from an electrochemical device. Instead, the cited passage discourages against utilizing treated water in certain applications. Indeed, one skilled in the art could interpret Bauman as suggesting flushing with untreated water.

Notably, Bauman explains that waste effluent (brine) can be stored in a vessel prior to being discharged as service water or be directly discharged to a sewer. (Bauman at column 3, lines 30-40.) Further, Bauman at FIG. 2, explains that the waste effluent can be stored in a vessel or be discharged to the sewer. (Bauman at column 3, lines 47-57.) As Applicants previously noted, however, the waste stream or discharge water from the electrochemical device in accordance with some aspects of the present invention can be advantageously be utilized to irrigate vegetation, rather than be discharged to drain. Bauman fails to recognize such a feature.

Therefore, because Bauman fails to disclose each of the limitations in the particular manner recited, the respective subject matter of each of claims 21, 22, and 40-42 cannot be anticipated by this reference.

Rejections under 35 U.S.C. § 103

Claims 23-25 and 44 were rejected under 35 U.S.C. § 103(a) as would have been obvious over the disclosure of Bauman in view of the disclosure of Sato et al. in U.S. Patent No. 6,733,646 B2 (hereinafter "Sato").

Applicants disagree that the respective subject matter of each of claims 23-25 and 44 would have been obvious over Bauman in view of Sato.

Bauman is particularly directed to providing softened water, rather than ultrapure water.

At Example 1, Sato allegedly discloses "treating water for household use and pretreatment of the water by activated carbon and RO filters." Sato, however, discloses producing high purity water having a resistivity of 18 MΩ·cm, which is water that cannot be considered suitable for household use. (See Sato at Table 1 of Example 1.) As Applicants previously noted, high purity or ultrapure water is highly corrosive.[1] As such, one skilled in the art would not have utilized highly corrosive water in a household because utilizing ultrapure water in a household would undesirably result in corrosive attack of the household piping and fixtures. Thus, one skilled in the art would not have relied on Sato's techniques to modify Bauman. To be sure, the alleged motivation of "to more thoroughly remove salts and dissolved solids, including silica and boron" is inapposite in Bauman because Bauman explicitly teaches storing treated water with raw water. (See Bauman at column 3, lines 48-54.) That is, there is no need to "thoroughly remove salts" when Bauman teaches mixing treated and untreated water together.

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[1] See, for example, U.S. Patent No. 5,645,727, which explains at column 2, lines 64 et seq., that high purity water or ultrapure water is highly corrosive.

Moreover, even if the references could have been combined, the ensuing combination from Bauman and Sato would still not have produced a system having an auxiliary use connected to a waste stream because Sato also fails to disclose this recited feature.

Because the prima facie case of obviousness in improper, the respective subject matter of each of claims 23-25 and 44 would not have been obvious over Bauman in view of Sato.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) of claims 23-25 and 44 as would have been obvious over Bauman in view of Sato is respectfully requested.

Claims 23, 26, 27, 44, and 45 were rejected under 35 U.S.C. § 103(a) as would have been obvious over the disclosure of Bauman in view of the disclosure of Gadini in U.S. Patent No. 6,766,812 B1 (hereinafter "Gadini").

Applicants disagree that the respective subject matter of each of claims 23, 26, 27, 44, and 45 would have been obvious over Bauman in view of Gadini.

Gadini discloses a washing machine with an improved device for reducing water hardness. However, Gadini, like Bauman, fails to disclose an auxiliary use fluidly connected to a waste stream of an electrochemical device. Rather, Gadini teaches directing water used to regenerate a decalcifier device to drain by way of a drain pump. (See Gadini at column 4, lines 22-25.) Thus, the prima facie case of obviousness is improper because even if one skilled in the art could have modified Bauman by incorporating Gadini, the resultant combination would not have provided a system having each of the specific limitations as respectively claimed in claims 23, 26, 27, 44, and 45.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) of claims 23, 26, 27, 44, and 45 as would have been obvious over Bauman in view of Gadini is respectfully requested.

Claim 28 was rejected under 35 U.S.C. § 103(a) as would have been obvious over the disclosure Bauman in view of the disclosure of Hirayama et al. in U.S. Patent No. 6,451,512 B1 (hereinafter "Hirayama").

Applicants disagree that the subject matter of claim 28 would have been obvious over Bauman in view of Hirayama.

Hirayama discloses disinfecting a deionized water-producing apparatus with hot water. (Hirayama at Abstract and at column 3, lines 7-17.) Hirayama, however, fails to cure the deficiencies of Bauman. For example, Hirayama does not disclose an auxiliary use fluidly connected to a waste stream from an electrochemical device. Therefore, the prima facie case of obviousness is improper because even if one skilled in the art could have modified Bauman by incorporating Hirayama, the resultant combination would not have provided a system having each of the limitations as particularly claimed in claim 28.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) of claim 28 as would have been obvious over Bauman in view of Hirayama is respectfully requested.

Claims 29 and 43 were rejected under 35 U.S.C. § 103(a) as would have been obvious over the disclosure of Bauman in view of the disclosure of Roberts in U.S. Patent No. 4,359,789 (hereinafter "Roberts")

Applicants disagree that the respective subject matter of each of claims 29 and 43 would have been obvious over Bauman in view of Roberts.

Roberts discloses a sewerless disposal system with an apparatus for treating water that was previously used to clean, wash, or flush toilets into treated water stored in unit 142. In building 100, black water from toilets 124 is collected in a common line and transferred to a recirculation system by way of black water drain 126. (Roberts at column 5, line 65-column 6, line 3.) Solid waste from system 125 is incinerated in incinerator 130, with or without prior maceration or grinding. (Roberts at column 6, lines 4-10.) Condensed water from a condenser 140 is introduced into a water storage facility 142; treated water from water purification system 122 is also introduced into storage facility 142. (Roberts at column 6, lines 34-39.) Treated water from the water storage unit 142 can thus be supplied to structure

100 as an additional source of fresh water for washing, showering, or for irrigation or livestock. (Roberts at column 6, lines 40-47.) Thus, Roberts discloses utilizing treated water, rather than a waste stream from an electrochemical device, for irrigation. Therefore, because Roberts cannot cure the deficiencies of Bauman, the prima facie case of obviousness is improper for failing to result in a system having each of the limitations in the particular manner recited.

Accordingly, reconsideration and withdrawal of the rejection of claims 29 and 43 under 35 U.S.C. § 103(a) as would have been obvious over Bauman in view of Roberts.

New Claims

New claims 71 and 72 are presented to recite additional features of the invention. The respective subject matter of each of these claims is novel and inventive over the cited references for at least the same reasons noted.

Entry and allowance of claims 71 and 72 is respectfully requested.

Conclusion

This application is in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes that the application is not in condition for allowance, the Examiner is requested to call Applicants' attorney at the telephone number listed below.

If this Amendment is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this Amendment, including an extension fee that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762 (Ref. No.: I0168-707619).

Respectfully submitted,
Anil D. Jha et al., Applicants

By: /elias domingo/
Peter C. Lando, Reg. No. 34,654
Elias Domingo, Reg. No. 52,827
LANDO & ANASTASI, LLP
One Main Street
Cambridge, Massachusetts 02142
United States of America
Telephone: 617-395-7000
Facsimile: 617-395-7070
Attorney for Applicants

L&A Ref. No.: I0168-707619
Dated: June 25, 2010